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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,484	02/25/2004	Tom N. Cornsweet	6270-A-13 (Div A-9)	3111

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EXAMINER

SANDERS JR, JOHN R

ART UNIT	PAPER NUMBER
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3735

DATE MAILED: 05/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/786,484

Applicant(s)

CORNSEET, TOM N.

Examiner

John R. Sanders

Art Unit

3735

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/26/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: The "Related Application" section does not include reference to the parent Application Ser. No. 10/247,753, now U.S. Patent No. 6,836,337.

Appropriate correction is required.

Claim Objections

2. Applicant is advised that should claims 19-26 be found allowable, claims 27-34 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 19-37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 19, 27 and 35, the limitations of a concave mirror and a central light source centrally disposed such that the light from the source propagates through the concave mirror

Art Unit: 3735

along an optical axis are insufficient to adequately relate the limit to which arrangements of a concave mirror and a light source are held within the scope of an alignment apparatus. For purposes of examination, Examiner has relied on the drawings to define the invention and has rejected the claims based on inferences from said drawings. However, Applicant is reminded that although the claims are interpreted in light of the disclosure, limitations from the disclosure are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In claims 26 and 34, it is unclear what is encompassed by the scope of the limitation of “covering at least a portion of said optical detector” since it is not known what constitutes “covering” with respect to the optical path of the light reflected from the eye, nor whether the method step is applied such that “covering” changes a state of said photodetector from an uncovered state to a covered state or whether the photosensor is meant to be “covered” at all times.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 3735

6. Claims 19, 23-24, 27, 31-32 and 35-37 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,131,574 to Kohayakawa ("Kohayakawa '574").

7. Kohayakawa '574 discloses an ophthalmological apparatus (Fig. 1; col. 2, lines 27-59) including an alignment system that reads on the alignment system of the instant claims.

Kohayakawa '574 discloses a central light source (1) which projects light through a concave mirror (5) along the optical axis, and discloses first and second offset light sources (10) disposed at equal distances from and on opposite sides of said axis. Said light sources emit light at an oblique angle toward a common point on said axis (Fig. 1). Kohayakawa '574 discloses other embodiments where the concave mirror is partially transmissive (col. 3, lines 57-64) or dichroic (col. 6, lines 46-54).

8. Claims 25 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,523,808 to Kohayakawa ("Kohayakawa '808").

9. Kohayakawa '808 discloses an ophthalmological apparatus (Fig. 20) which propagates spherically curved light (via lens 305) to the cornea, retroreflects light from the cornea, and collects and focuses said collected light to a photosensor for purposes of alignment detection (col. 14, lines 29-48). The photosensor is located at a position conjugate to a corneal reflex image of the eye when the eye is in a position of optimal alignment with the apparatus. Thus, when optimal alignment is achieved, the corneal reflex image impinges on said detector thereby creating a maximum intensity on said photodetector. From Fig. 3 it is apparent that the objective lens (69) is comparable to the lens (305) in Fig. 20. Fig. 3 shows that the lens (69) propagates light having a center of curvature substantially coincident with the center of curvature of the

cornea. Thus, the alignment of the eye with the apparatus is effected when the centers of curvature of the impinging light and the cornea are substantially coincident.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 20-22 and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kohayakawa '574.

12. Kohayakawa '574 discloses the above limitations but does not expressly disclose light emitting diodes (LEDs) or a metallized mirror. However, one of ordinary skill in the art is apprised that LEDs and metallized mirrors are common expedients in the art and as such would have found it obvious to substitute said expedients as the light sources and concave mirror disclosed by Kohayakawa '574, respectively.

13. Claim 26 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kohayakawa '808.

14. Kohayakawa '808 discloses the above limitations but does not expressly disclose covering a portion of said detector such that the light intensity on said photosensor is reduced when said centers of curvature of the impinging light and the cornea are non-coincident.

Art Unit: 3735

However, Kohayakawa '808 nevertheless achieves a configuration whereby the light intensity on the photosensor is reduced when the corneal reflex image is not conjugate with said sensor.

15. Broadly interpreted, it is conceivable that device components of Kohayakawa '808 "cover" the photosensor with respect to the optical path of the retroreflected light, for when the corneal reflex image is not conjugate with said photosensor, the retroreflected light is not impinging upon said photodetector and therefore may be striking a different part of the apparatus, such as the inner housing.

16. However, even if this is not necessarily the case in Kohayakawa '808, one of ordinary skill in the art would find it obvious, based on the disclosure of Kohayakawa '808, to arrange known optical elements in such a way, without undue experimentation, that the same effect (increased intensity on the photosensor when the eye is aligned with the apparatus) is achieved. Covering part of said photosensor to create such an effect would be within the range of design choices that one of ordinary skill in the art would find obvious to implement, without undue experimentation, based upon a particular optical path of the retroreflected corneal reflex image.

Conclusion

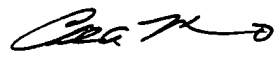
Any inquiry concerning this communication or earlier communications from the examiner should be directed to John R. Sanders whose telephone number is (571) 272-4742. The examiner can normally be reached on M-F 10:00 am to 6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor, II can be reached on (571) 272-4730. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3735

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


01 May 2006


Charles A. Marmor, II
Supervisory Patent Examiner
Art Unit 3735